

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application.

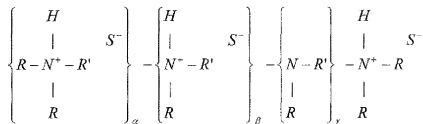
Listing of Claims:

Claim 1: (Currently Amended) A solid laundry detergent composition comprising granules, the granules comprising:

(a) from about 10% to about 50%, by weight of the composition, of a substantially non-aqueous liquid binder comprising:

(1) from about 5% to about 80%, by weight of the binder, of a polyanionic ammonium surfactant, the polyanionic ammonium surfactant produced by reacting 100% of a conjugate acid of an anionic surfactant with about 10% to about 50%, of the molar equivalent of the amount of the conjugate acid, of a polyamine;

wherein the polyanionic ammonium surfactant has a structure



where R is hydrogen:

R' is selected from C₂-C₁₂ alkylene, C₄-C₁₂ alkenylene, C₃-C₁₂ hydroxyalkylene wherein the hydroxyl moiety may take any position on the R' unit chain except the carbon atoms directly connected to the polyamine backbone nitrogen; C₄-C₁₂ dihydroxyalkylene wherein the hydroxyl moieties may occupy any two of the carbon atoms of the R' unit chain except those carbon atoms directly connected to the backbone nitrogen;

the values of α , β and γ are between 0 to 4 and the sum of α and β is greater than 1 ;

S⁻ is R₃-L⁻

where R₃ is selected from straight or branched C₆-C₂₂ alkyl, C₆-C₂₂ Alkylene, C₆-C₂₂ polyoxyalkylenealkyl, C₆-C₂₂ polyoxyalkylenatacyl, C₆-C₂₂ alkylaryl, Rosin derivatives, C₆-C₂₂ N-acylalkyl; C₆-C₂₂ α -sulfonatedalkyl, C₆-C₂₂ hydroxyalkyl, and C₆-C₂₂ hydroxyalkylene;

where L⁻ is selected from COO⁻, SO₃⁻, OSO₃⁻ phosphoric acid, phosphorous acid, amino acids, aromatic carboxylic acid, sugar base acids derived from oxidation of monosaccharides and polysaccharides;

- (2) from about 95% to about 20%, by weight of the binder, of
a substantially non-aqueous solubilizer for the polyanionic
ammonium surfactant
 - (3) optionally, from about 0% to about 20%, by weight of the binder, of a
water-dissolvable/water dispersible liquefiable binder,
- (b) from about 50% to about 90%, by weight of the composition, of
solid particles.

Claim 2: (Original) The composition of claim 1 wherein the polyanionic ammonium surfactant is selected from the group consisting of polyanionic ammonium alkyl benzene sulfonate, polyanionic ammonium alkyl sulfate, polyanionic ammonium fatty acid salt, polyanionic ammonium alkyl polyalkoxy sulfate and mixtures thereof.

Claim 3: (Previously Presented) The composition of claim 1, wherein weight ratio of solubilizer to the polyanionic ammonium surfactant is in the range of from about 1:20 to about 20:1.

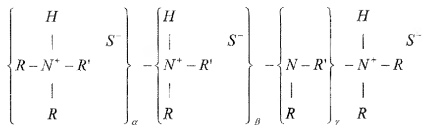
Claim 4: (Original) The composition of claim 1 wherein the solubilizer is selected from the group consisting of propylene glycol, glycerin, ethanol, nonionic surfactants, alkyl polyethoxy sulfate, and mixtures thereof.

Claim 5: (Original) The composition of claim 1 wherein the granules further comprise a solid acid and an alkaline ingredient.

Claim 6: (Original) A method of washing laundry in a front-loading washing machine, the method comprising adding to the washing machine the composition of claim 1.

Claim 7: (Currently Amended) A process of preparing polyanionic ammonium surfactant granules comprising, in no particular order, the steps of :
(a) charging solid detergent ingredients into a granulator,
(b) adding before or during the granulation a substantially non-aqueous liquid binder comprising:

- (1) from about 5% to about 80%, by weight of the binder, of a polyanionic ammonium surfactant, the polyanionic ammonium surfactant produced by reacting 100% of a conjugate acid of an anionic surfactant with about 10% to about 50%, of the molar equivalent of the amount of the conjugate acid, or a polyamine wherein the polyanionic ammonium surfactant has a structure



where R is hydrogen;

R' is selected from C₂-C₁₂ alkylene, C₄-C₁₂ alkenylene, C₃-C₁₂ hydroxyalkylene wherein the hydroxyl moiety may take any position on the R' unit chain except the carbon atoms directly connected to the polyamine backbone nitrogen; C₄-C₁₂ dihydroxyalkylene wherein the hydroxyl moieties may occupy any two of the carbon atoms of the R' unit chain except those carbon atoms directly connected to the backbone nitrogen;

the values of α, β and γ are between 0 to 4 and the sum of α and β is greater than 1 ;

S⁻ is R₃-L⁻

where R₃ is selected from straight or branched C₆-C₂₂ alkyl, C₆-C₂₂ Alkylene, C₆-C₂₂ polyoxyalkylenealkyl, C₆-C₂₂ polyoxyalkylenatacyl, C₆-C₂₂ alkylaryl, Rosin derivatives, C₆-C₂₂ N-acylalkyl; C₆-C₂₂ α-sulfonatedalkyl, C₆-C₂₂ hydroxyalkyl, and C₆-C₂₂ hydroxyalkylene;

where L⁻ is selected from COO⁻, SO₃⁻, OSO₃⁻, phosphoric acid, phosphorous acid, amino acids, aromatic carboxylic acid, sugar base acids derived from oxidation of monosaccharides and polysaccharides;

- (2) from about 95% to about 20%, by weight of the binder, of a substantially non-aqueous solubilizer for the polyanionic ammonium surfactant;
- (3) optionally, from about 0% to about 20%, by weight of the binder, of a water-dissolvable/water dispersible liquifiable binder, to form polyanionic ammonium surfactant granules,

(c) optionally, adding a layering agent and/or post-dosing other minor ingredients.

Claim 8: (Original) The process of claim 1 further comprising preparing the binder by mixing a polyamine with an acid precursor of anionic surfactant and/or fatty acid, in the substantial absence of water and in the presence of a solubilizer.